Persons with Disabilities: Air Travel in Canada

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1.0 Introduction

This report provides a profile of persons with disabilities and air travel in Canada. It is one of six modal reports concerning persons with disabilities and transportation in Canada. The remaining five modal reports focus on:

- intercity bus travel;
- rail travel;
- marine (i.e., ferry) travel;
- travel involving local modes of transportation (i.e., public transit, specialized transit, and taxis); and
- personal vehicles.

These reports provide both detailed information on the specific modes of travel and a general overview of persons with disabilities. An overview report presenting highlights of the modal reports has also been prepared. The overview report contains a more detailed and comprehensive overview of the characteristics of persons with disabilities. To obtain a complete picture of persons with disabilities and air travel in Canada, the reader should consult the overview report in addition to this modal report.

1.1 Data Source

The information provided in this report was generated using the TransAccess Information Base, a computer system that can be used to obtain predefined and custom tabulations on the characteristics of individuals with disabilities. Table 1.1 provides an overview of the data that can be generated by TransAccess.

Table 1.1: Information Available Through TransAccess

- ***Socio-economic characteristics** of persons with disabilities (e.g., age, gender, income, employment, education).*
- ***Disability information** (e.g., types of disabilities, such as mobility, agility, hearing, seeing, etc.; use of special aids; and severity of disabilities).*
- ***Transportation information**, including modes of transportation used by persons with disabilities (e.g., inter-city [rail, air, bus], local [public transit, specialized transit taxi], and personal vehicles [cars, vans]), availability of transportation services, types of trouble encountered while travelling, need for special services, etc.)*
- ***Geographic information** (e.g., the geographical distribution of persons with disabilities at national and provincial levels, and at urban and rural levels).*

The data source for TransAccess is the Health and Activity Limitation Survey (HALS) undertaken by Statistics Canada. HALS, which was developed through consultation with government representatives, associations of and for persons with disabilities, and persons with

disabilities themselves, was first conducted in 1986 following the 1986 Census and repeated in 1991 following the 1991 Census. Both the 1986 and 1991 HALS included a Households component (which focused separately on adults and children) and an Institutions component.

The 1991 HALS Households Survey was carried out in two stages. The first stage involved analyzing the responses to two questions on the 1991 Census long form questionnaire (#18 and #19, on activity limitation and long-term disability respectively). Individuals who answered positively to these questions were identified, and approximately 35,000 were chosen as the target population for the HALS survey.

Field tests indicated that many persons with a disability did not answer "yes" to the questions on activity limitation. To avoid potential biases in the target population, it was decided to select a sample of individuals who responded "no" to these disability questions. Approximately 113,000 individuals were selected for the "no" sample. Combined, the "yes" and "no" samples represented the overall HALS survey sample.

The 1991 HALS Microdata File (the source for much of the data generated for this report) contains information on 91,355 people (25,942 persons with disabilities and 65,413 persons without disabilities). With weighting of the data, the HALS Microdata File contains information on 21,063,077 people (3,533,089 persons with disabilities and 17,529,988 persons without disabilities). The 1991 HALS Microdata File was released in October, 1994. Additional data on the number of trips made by persons with disabilities (by mode) was made available by Statistics Canada in December 1995.

The HALS survey covered the following nine areas:

A: Disability Screening
B: Use of Technical Aids and Services
C: Everyday Activities
D: Education
E: Employment
F: Transportation
G: Accommodation
H: Recreation and Lifestyles
I: Economic Characteristics

If an individual responded "yes" to any of the disability screening questions in Section A of the 1991 HALS, the remainder of the survey was undertaken. If however, they responded "no" to all of the screening questions, they were considered not to have a disability and the survey was terminated.

For reference purposes, Section F of the 1991 HALS questionnaire (which deals specifically with transportation issues) is provided in Appendix A. Note that the information presented in this report is based on the information collected in Section F.

1.2 Guidelines for Interpreting the Data

Unless otherwise noted, the information in this report is based on the 1991 HALS, and pertains to adults, ages 15 and over, who reside in households. The information has been projected to 1995 in order to provide a more timely depiction of the data. The projections were generated by applying 1991 disability incidence rates to 1995 population projections (stratified by age). The population projections are based on Statistics Canada's (1994) medium growth population projections. Projections beyond 1995 are also age adjusted figures.

In particular cases, reference is made to CVs. This relates to the coefficient of variation (CV) of a particular value, which can be used to develop a confidence interval (CI) associated with that value. The CI is a statement on the level of confidence that the true value lies within a specified range of values. For example, a 95% two-sided confidence interval (CI) can be calculated with the following formula:

$$CI = Value (+/- 1.96 \times [CV \times Value])$$

Based on Statistics Canada's guidelines for interpreting data, CVs that are between 16.5% and 33% are highlighted with a "*", indicating that the values should be used with care due to the high variability associated with the values. CVs over 33% are highlighted with a "**", indicating that the values should be used with a greater degree of care due to the even higher variability associated with the values.

1.3 Definition of Persons with Disabilities and Persons with Transportation Disabilities

HALS uses the World Health Organization's (WHO) International Classification of Impairments and Handicaps to define a disability. This states that:

> *"In the context of health experience, a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered to be normal for a human being."*

In defining persons with disabilities, HALS uses certain parameters. For example, individuals aged 15 and older were not considered to have a disability if they use a technical aid and that aid completely eliminates the limitation they experience (e.g., an individual who uses a hearing aid or glasses/contact lenses, and states that he/she has no limitation when using the aid, would not be considered to have a disability). Furthermore, the concept of time is also used as an additional parameter in defining persons with disabilities. In particular, the limitation must have lasted, or is expected to last, six months or longer.

Persons with transportation disabilities are a sub-set of persons with disabilities. The definition of persons with transportation disabilities was derived from the responses to questions asked in Section F of the 1991 HALS questionnaire. In particular, persons with transportation disabilities are defined as those individuals:

- *Who because of their health problem(s) or condition(s), are unable to use transportation services; or,*
- *Who use transportation services with more difficulty than those in the general population.*

1.4 Overview of Report

This report is divided into the following sections:

- Section 1.0 provides an introduction and overview of the report;
- Section 2.0 presents a profile of persons with disabilities;
- Section 3.0 profiles persons with disabilities and long distance travel in Canada;
- Section 4.0 presents information pertaining to persons with disabilities and air travel; and
- Section 5.0 presents a summary of the data profiled in the report.

A Glossary, defining selected terms, is also provided at the end of the report.

2.0 A Profile of Persons with Disabilities

2.1 Demographic Characteristics of Persons with Disabilities

In 1995, an estimated 3.8 million adults in households have a disability. As illustrated in Table 2.1, this accounts for 17.1% of the 22.2 million adults residing in households in Canada.

Of the 3.8 million persons with disabilities, 2.2 million have a transportation disability. Persons with transportation disabilities account for 9.9% of the total adult population in Canada, and 57.5% of all adults with disabilities.

Table 2.1: Persons with Disabilities and Persons with Transportation Disabilities in Canada (1995)

Population Group	Total (000s)	As a % of Total Population
Persons with Disabilities	3,813	17.1%
Persons with Transportation Disabilities	2,193	9.9%
Total Population	**22,240**	**100%**

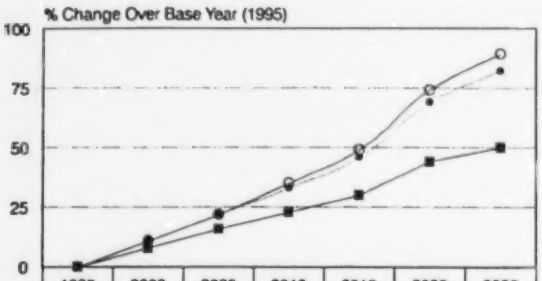
Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

As illustrated in Exhibit 2.1, the number of adults with disabilities is expected to increase from 3.8 million in 1995 to 6.9 million in 2025. This represents an increase of 82% between 1995 and 2020. Persons with transportation disabilities are predicted to increase from approximately 2.2 million in 1995 to 4.1 million in 2025, an increase of 89%.

Meanwhile, the general population is expected to increase by a much smaller percentage (50%) between 1995 and 2025, from 22.2 million in 1995 to 33.3 million in 2025, a rate that is lower than the rates for persons with disabilities and persons with transportation disabilities.

The high growth rates for persons with disabilities and persons with transportation disabilities is partly explained by the significant growth rates of persons 65 years of age and over. This population group (i.e., persons over the age of 65) is expected to increase from 3.2 million in 1995 to 7.8 million in 2025, an increase of approximately 140%.

Exhibit 2.1: Population Growth Rates in Canada
by Category, 1995-2025
(% Change Over 1995 Base Year)



	1995	2000	2005	2010	2015	2020	2025
Persons w/Transp. Dis. (% Change) ⊖	0	11	22	35	49	74	89
Persons w/Transp. Dis. (Millions)	2.2	2.4	2.7	3	3.3	3.8	4.1
Persons w/Disabilities (% Change) ●	0	11	22	33	46	69	82
Persons w/Disabilities (Millions)	3.8	4.2	4.6	5.1	5.6	6.4	6.9
Total Adult Population (% Change) ■	0	8	16	23	30	44	50
Total Adult Population (Millions)	22.2	24	25.7	27.4	28.9	32	33.3

Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

2.2 Age Characteristics of Persons with Disabilities

Table 2.2 indicates that the incidence of disabilities increases with age: whereas only 7.9% of persons between the ages of 15-34 have a disability, 42.5% of persons 65 years of age and over have a disability.

Table 2.2: Persons with Disabilities by Age Group (1995)

Age Group	Total Persons with Disabilities (000s)	As a % of Persons in Age Group
15-34	656	7.9%
35-54	1,137	13.7%
55-64	648	26.6%
65+	1,372	42.5%
Total	**3,813**	**17.1%**

Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

Table 2.3 indicates that the incidence of transportation disabilities also increases with age: whereas only 3.6% of persons between the ages of 15-34 have a transportation disability, 28.3% of persons 65 years of age and over have a transportation disability.

The high incidence of disabilities for persons 65 years of age and over, coupled with a high growth rate for this population group, are key factors in explaining the predicted high growth rates of persons with disabilities and those with transportation disabilities, as presented in Section 2.1.

Table 2.3: Persons with Transportation Disabilities by Age Group (1995)

Age Group	Total Persons with Transportation Disabilities (000s)	As a % of Persons in Age Group
15-34	301	3.6%
35-54	602	7.3%
55-64	375	15.4%
65+	915	28.3%
Total	**2,193**	**9.9%**

Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

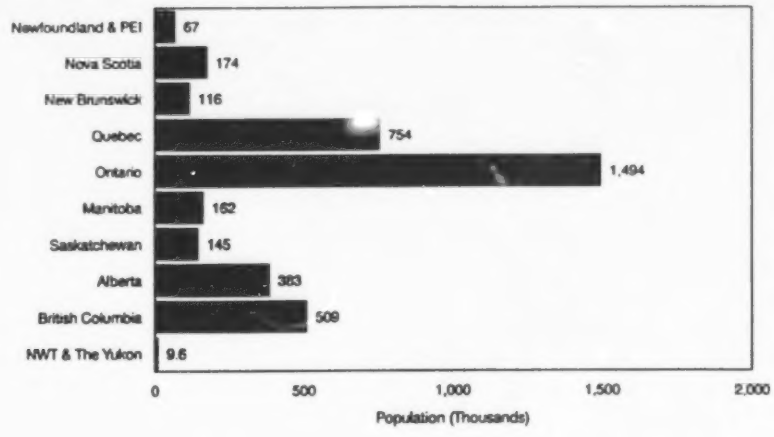
2.3 Persons with Disabilities by Province

Persons with Disabilities

The distribution of persons with disabilities by province is provided in Exhibit 2.2. As illustrated by this exhibit, the provinces with the largest populations of persons with disabilities are Ontario, Quebec, British Columbia, and Alberta. Combined, these provinces account for 82.5% of persons with disabilities in Canada.

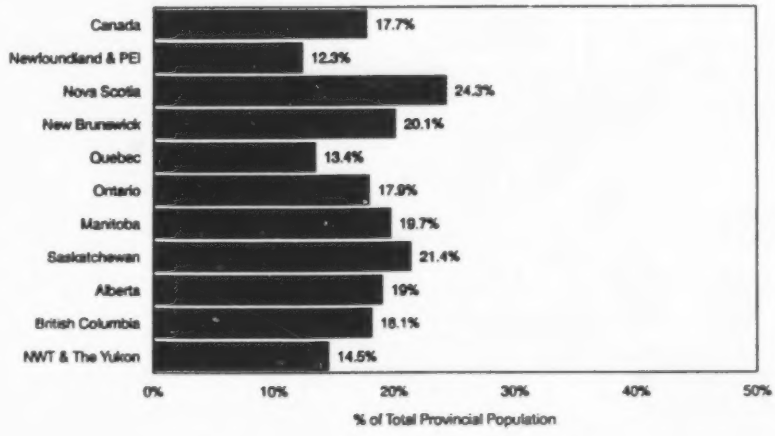
The percentage of persons within a given province that have a disability is given in Exhibit 2.3. Nova Scotia has the highest incidence of disabilities, with 24.3% of persons 15 years of age and over reporting a disability. Nova Scotia is followed by Saskatchewan (21.4%), New Brunswick (20.1%), Manitoba (19.7%), and Alberta (19%). Meanwhile, Quebec (13.4%) and Newfoundland and Prince Edward Island (12.3%) have the lowest disability incidence rates.

Exhibit 2.2: Persons with Disabilities by Province (1995)
(Total Persons with Disabilities: 3,813,000)



Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

Exhibit 2.3: Persons with Disabilities by Province
(As a % of Total Provincial Population, 1995)



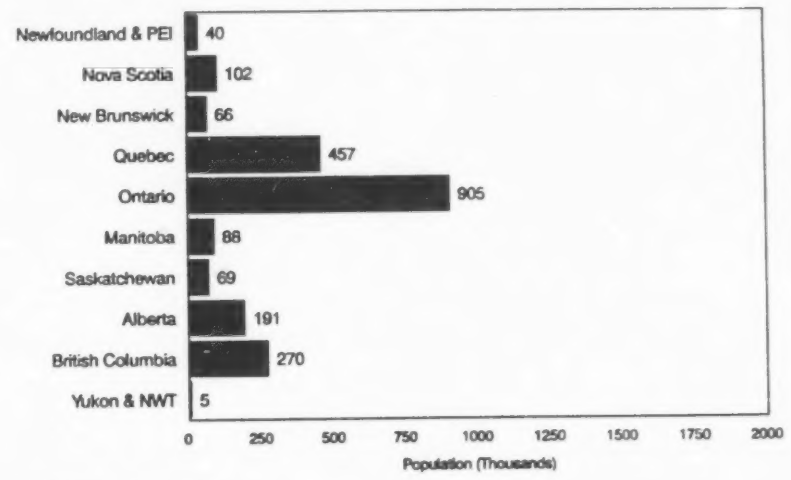
Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

Persons with Transportation Disabilities

The distribution of persons with transportation disabilities by province is provided in Exhibit 2.4. The provinces with the largest populations of persons with transportation disabilities are, again, Ontario, Quebec, British Columbia, and Alberta. Combined, these provinces account for 83.2% of persons with transportation disabilities in Canada.

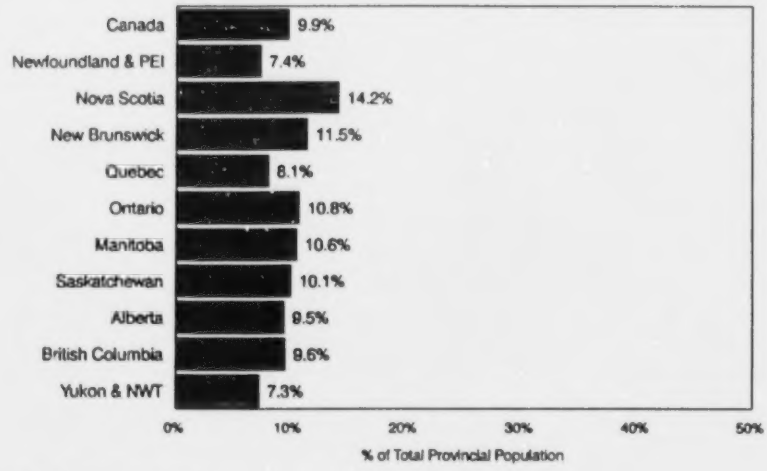
The percentage of persons within a given province that have a transportation disability is given in Exhibit 2.5. As for persons with disabilities, Nova Scotia has the highest incidence of transportation disabilities, with 14.2% of persons 15 years of age and over reporting a transportation disability. Newfoundland and Prince Edward Island (7.4%), and the Northwest Territories and the Yukon (7.3%) have the lowest incidence rates of transportation disabilities.

Exhibit 2.4: Persons with Transportation Disabilities, by Province (1995)
(Total Persons with Transportation Disabilities: 2,193,000)



Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

Exhibit 2.5: Persons with Transportation Disabilities, by Province
(As a % of Total Provincial Population, 1995)



Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

2.4 Disability Characteristics of Persons with Disabilities

Types of Disabilities

The disability characteristics of persons with disabilities and persons with transportation disabilities are given in Table 2.4.

As the figures in Table 2.4 indicate, the most common types of disabilities experienced, by both persons with disabilities and persons with transportation disabilities, are:

- mobility disabilities;
- agility disabilities;
- hearing disabilities; and
- other[1] disabilities.

[1] Persons with "other" types of disabilities are those who are limited in their activities of daily living due to a learning disability, a mental health condition, a mental handicap, or labelling by others.

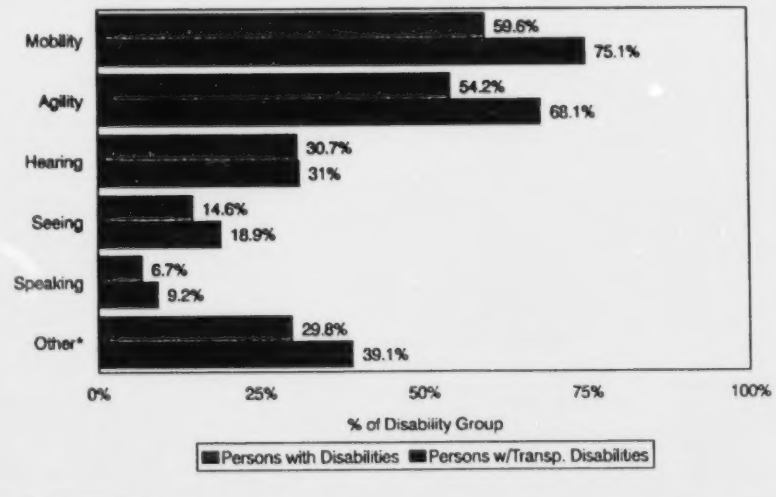
Table 2.4: Disability Characteristics of Persons with Disabilities and Persons with Transportation Disabilities (1995)

Type of Disability	Persons with Disabilities (000s)	Persons with Transportation Disabilities (000s)
Mobility	2,271	1,646
Agility	2,067	1,492
Seeing	558	414
Hearing	1,171	681
Speaking	257	201
Other	1,137	857
Total	**3,813**	**2,193**

Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

Exhibit 2.6 illustrates the types of disabilities as a percentage of the two disability populations. This exhibit illustrates that persons with transportation disabilities have a higher incidence of mobility, agility, and other disabilities, as compared to the total population of persons with disabilities.

Exhibit 2.6: Disability Characteristics of Persons with Disabilities and Persons with Transportation Disabilities (1995)



Source: TransAccess Information Base
*Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data. **Other* is defined as individuals who are limited in their activities of daily living due to a learning disability, a mental health condition, a mental handicap, or labelling by others.*

Disability Severity Index

Table 2.5 and Exhibit 2.7 profile persons with disabilities and persons with transportation disabilities by the severity of their disabilities. With respect to persons with disabilities:

- 48.8% (1,862,000) have mild disabilities;
- 32.9% (1,256,000) have moderately severe disabilities; and
- 18.2% (695,000) have severe disabilities.

In comparison, persons with transportation disabilities have more moderately severe or severe disabilities. In particular, 74.8% of persons with transportation disabilities have moderately severe or severe disabilities, whereas 51.1% of persons with disabilities have moderately severe or severe disabilities.

Table 2.5: Severity of Disabilities for Persons with Disabilities and Persons with Transportation Disabilities

Severity of Disability	Persons with Disabilities (000s)	Persons with Transportation Disabilities (000s)
Mild	1,862	555
Moderately Severe	1,256	957
Severe	695	681
Total	**3,813**	**2,193**

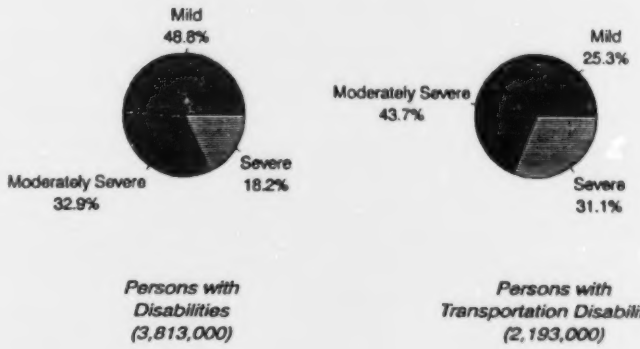
Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

Use of Special Aids

Exhibit 2.8 profiles the types of special aids used by persons with disabilities, while Exhibit 2.9 profiles the types of special aids used by persons with transportation disabilities. With respect to persons with disabilities, the five most commonly used special aids are:

- cane (other than a white cane);
- glasses or contact lenses;
- hearing aid;
- volume control telephone; and
- hand held desk magnifier.

Exhibit 2.7: Disability Severity Index for Persons with Disabilities and Persons with Transportation Disabilities (1995)



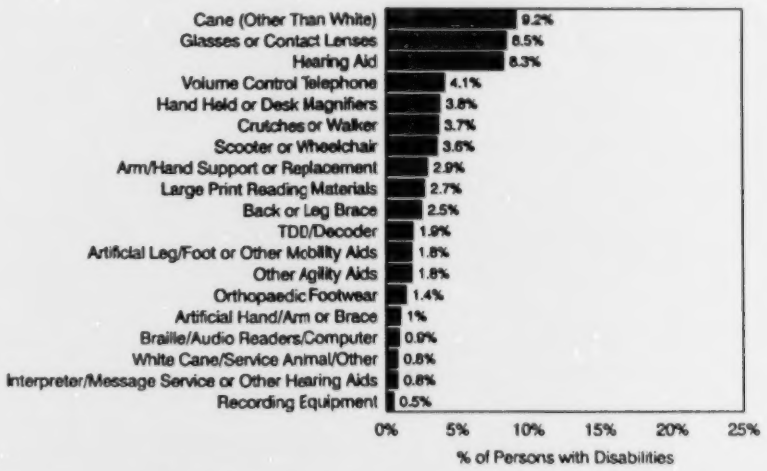
Persons with Disabilities (3,813,000)

Persons with Transportation Disabilities (2,193,000)

Source: TransAccess Information Base.
Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data. Numbers may not add up to 100% due to rounding.

Exhibit 2.8: Types of Special Aids* used by Persons with Disabilities (1995)

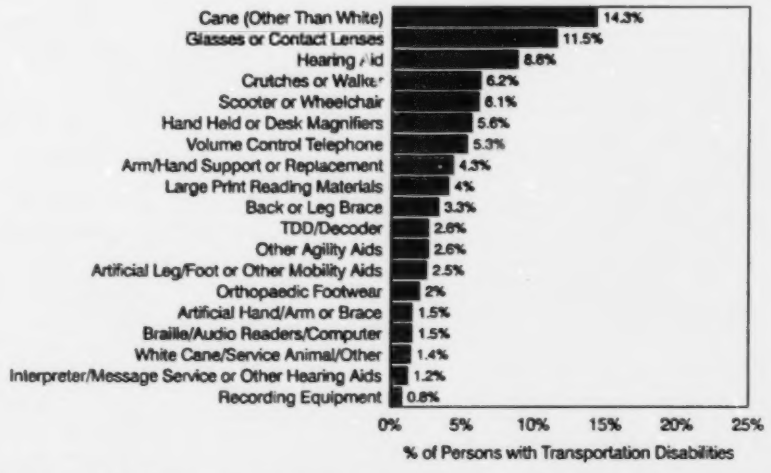
[Total Persons with Disabilities: 3,813,000]



Source: TransAccess Information Base. Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data.
**Types of special aids add up to more than 100% due to multiple responses.*

Proportionally more persons with transportation disabilities use canes (other than white canes), glasses or contact lenses, and hearing aids than do persons with disabilities. Furthermore, crutches or a walker, and a scooter or wheelchair replace volume control telephones and hand held desk magnifiers as the fourth and fifth most commonly used special aids. This reflects the higher incidence of mobility disabilities for persons with transportation disabilities as compared to persons with disabilities.

Exhibit 2.9: Types of Special Aids* used by Persons with Transportation Disabilities (1995)
[Total Persons with Transportation Disabilities: 2,193,000]


Cane (Other Than White) 14.3%
Glasses or Contact Lenses 11.5%
Hearing Aid 8.6%
Crutches or Walker 6.2%
Scooter or Wheelchair 6.1%
Hand Held or Desk Magnifiers 5.6%
Volume Control Telephone 5.3%
Arm/Hand Support or Replacement 4.3%
Large Print Reading Materials 4%
Back or Leg Brace 3.3%
TDD/Decoder 2.6%
Other Agility Aids 2.6%
Artificial Leg/Foot or Other Mobility Aids 2.5%
Orthopaedic Footwear 2%
Artificial Hand/Arm or Brace 1.5%
Braille/Audio Readers/Computer 1.5%
White Cane/Service Animal/Other 1.4%
Interpreter/Message Service or Other Hearing Aids 1.2%
Recording Equipment 0.8%
0% 5% 10% 15% 20% 25%
% of Persons with Transportation Disabilities

Source: TransAccess Information Base. Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data.
**Types of special aids add up to more than 100% due to multiple responses.*

3.0 Persons with Disabilities and Long Distance Travel

This section provides an overview of persons with disabilities and long distance travel. The information for this section is based on the 1991 HALS, Section F, questions 20-24. These questions deal with general issues pertaining to long distance travel (which consists of trips of 80 kms [50 miles] or more) and focus on an individual's:

- ability to travel long distance;
- need for an attendant or companion on long distance trips; and
- need for special services for long distance trips.

3.1 Persons with Disabilities and their Ability to take Long Distance Trips

Of the 3.8 million Canadians with a disability, 2.9 million (76.2%) stated that they were able to travel long distances. Meanwhile, 676,000 persons with disabilities (17.7%) stated that they were prevented from taking long distance trips due to their condition or health problem (the remaining 6.1% were unstated responses).

Types of Difficulties which Prevent Persons with Disabilities from taking Long Distance Trips

The persons with disabilities who stated that they were unable to travel long distances were asked to identify the difficulties which prevented them from doing so. These difficulties are profiled in Exhibit 3.1.

As illustrated in this exhibit, the most frequently cited difficulty preventing persons with disabilities from taking long distance trips is that the flight or ride aggravates their condition. Overall, 405,000 of the 676,000 persons with disabilities prevented from taking long distance trips (59.9%) cited this as a factor preventing them from undertaking long distance travel.

Other frequently cited difficulties were the seating on-board the vehicle, transporting special aids/other[2], boarding and/or disembarking, moving around the terminal, and the costliness of travel.

It should be noted that due to the HALS survey design, these difficulties were not linked with specific modes of long distance travel. Rather they were responses provided with respect to long distance travel in general.

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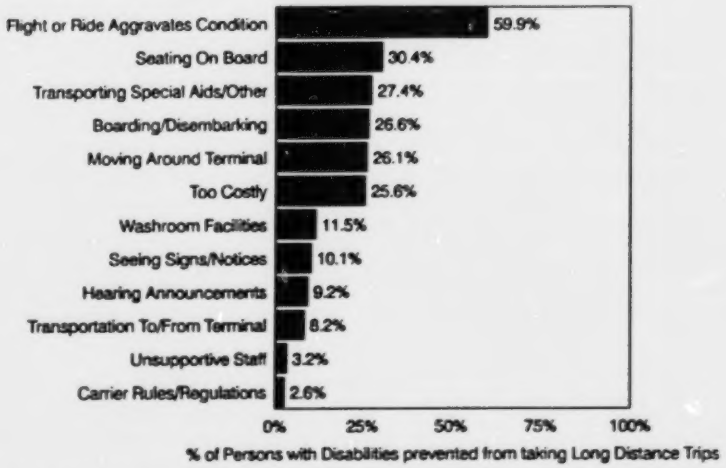
[2] This difficulty refers to 1) transporting a wheelchair or other specialized aids, and 2) other (i.e., non-specified difficulties). During the HALS data coding process, Statistics Canada grouped these two difficulties together.

Exhibit 3.1: Types of Difficulties* which prevent Persons with Disabilities from taking Long Distance Trips (1995)

[Total Persons prevented from taking Long Distance Trips: 676,000]



*Source: TransAccess Information Base. Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data. *Difficulties add up to more than 100% due to multiple responses.*

3.3 Need for an Attendant/Companion on Long Distance Trips

The persons with disabilities who stated that they could travel long distances were asked whether they required an attendant or companion to accompany them on long distance trips due to their condition or health problem. Of the 2.9 million persons with disabilities able to travel long distances, 537,000 (18.5%) stated that they did need an attendant or companion.

3.4 Need for Specialized Transportation Services or Facilities for Long Distance Trips

The persons with disabilities who stated that they could travel long distances were also asked whether they required any special services or facilities on long distance trips due to their condition or health problem. Of the 2.9 million persons with disabilities able to travel long distance, 89,000 (3.1%) stated that they did need specialized transportation services or facilities for long distance travel.

It should be noted that due to the design of the 1991 HALS, no data was collected on the specific types of specialized transportation services or facilities required on long distance trips.

However, specialized transportation services and/or facilities which could potentially be used by persons with disabilities include:

- accessible taxis for transportation to and from the terminal;
- accessible shuttle buses for transportation between terminals;
- boarding devices (e.g., for persons with mobility disabilities, users of wheelchairs, etc.);
- accessible washrooms within terminals;
- elevators within terminals;
- large print schedule information;
- talking, or audible, signage;
- large print or symbol-based signage; and
- wheelchairs for movement within terminals.

Ease of Obtaining Information on Specialized Transportation Services and Facilities

The 2.9 million persons with disabilities who stated that they were able to travel long distances were asked whether they could easily obtain information on specialized transportation services and facilities if they needed these services or facilities for travelling long distance.

Of the 2.9 million individuals who responded to this question:

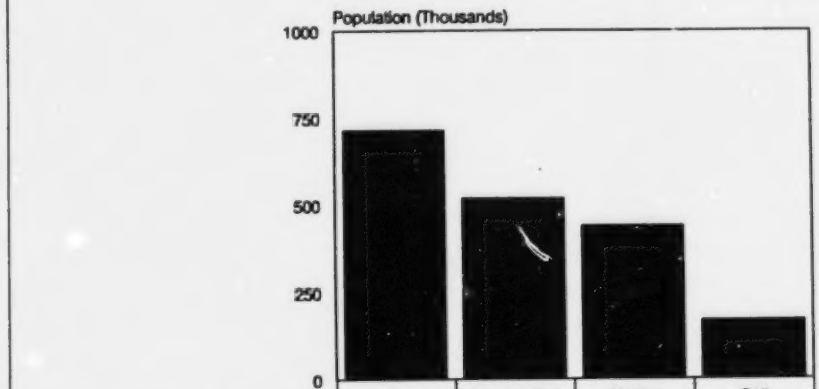
- 51.7% (1.5 million) stated that they could easily obtain the information;
- 17.2% (500,000) stated that they could not easily obtain the information; and
- 31.0% (900,000) stated that they did not know whether they could easily obtain the information.

4.0 Air Travel and Persons with Disabilities

4.1 Persons with Disabilities who travel by Air

As indicated in Exhibit 4.1, it is estimated that 715,000 (18.8%) of the 3.8 million persons with disabilities will travel by air in 1995. Air travel is followed by intercity bus, with 519,000 persons stating they will travel by this mode, marine/ferry (440,000) and rail (168,000).

Exhibit 4.1: Use of Long-Distance Transportation Services by Persons with Disabilities*, by Mode (1995)
[Total Persons with Disabilities: 3,813,000]



	Air	Intercity Bus	Marine	Rail
Persons with Disabilities (000s)	715	519	440	168
As a % of Total Persons with Disabilities	18.8	13.6	11.5	4.4

Source: TransAccess Information Base. Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data.
** Based on usage, by mode, between the fall of 1990 and the fall of 1991.*

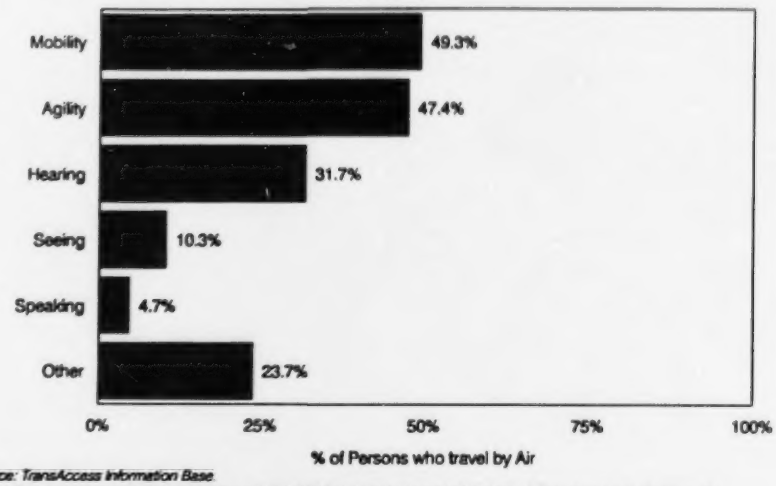
Persons with Disabilities who travel by Air, by Types and Severity of their Disabilities

As illustrated in Exhibit 4.2a, mobility and agility disabilities characterize many of the persons with disabilities who travel by air. Persons with disabilities who travel by air also have a relatively high incidence of hearing disabilities.

Exhibit 4.2b profiles those persons with disabilities who travel by air as a percentage of each disability group. As illustrated in this exhibit, persons with hearing disabilities had the highest propensity to travel by air. Those with hearing disabilities who travel by air represent 19.4% of all persons with hearing disabilities.

Exhibit 4.2a: Disability Characteristics of Persons with Disabilities who travel by Air*, (1995)

[Total Persons with Disabilities who travel by Air: 715,000]

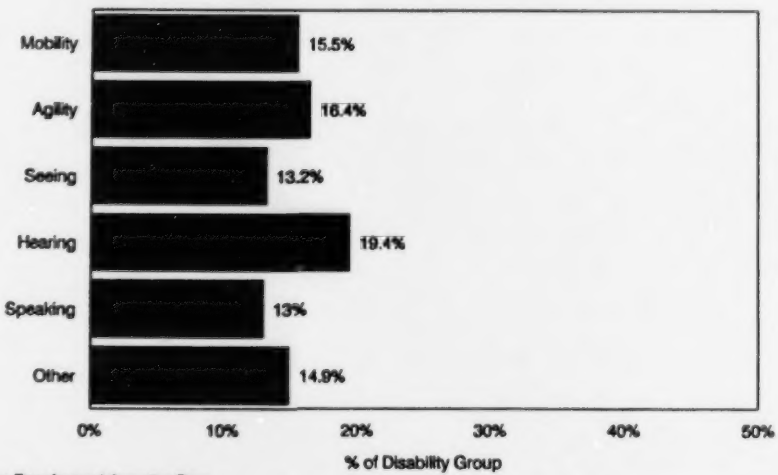


Source: TransAccess Information Base.

*Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data. * Based on usage between the fall of 1990 and the fall of 1991.*

Exhibit 4.2b: Persons with Disabilities who travel by Air* as a Percentage of Each Disability Group (1995)

[Total Persons with Disabilities who travel by Air: 715,000]



Source: TransAccess Information Base.

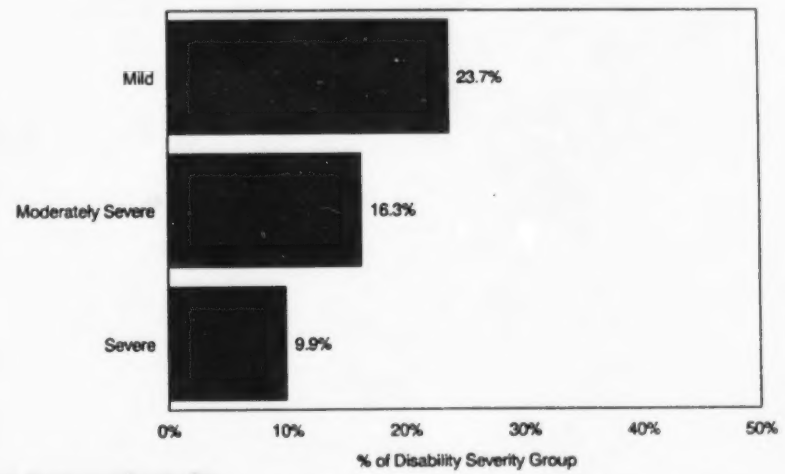
*Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data. * Based on usage between the fall of 1990 and the fall of 1991.*

Persons with disabilities who travel by air are more likely to have mild disabilities. Of those with disabilities who travel by air, 61.8% have a mild disability. Only 9.6% have severe disabilities, while 28.6% have moderately severe disabilities.

Exhibit 4.3 profiles those persons with disabilities who travel by air as a percentage of each disability severity group. As illustrated in this exhibit, persons with mild disabilities have the highest propensity to travel by air. Those with mild disabilities who travel by air represent 23.7% of all persons with mild disabilities. Meanwhile, persons with severe disabilities who travel by air represent only 9.9% of all persons with severe disabilities.

Exhibit 4.3: Persons with Disabilities who travel by Air* as a Percentage of Each Disability Severity Group (1995)

[Total Persons with Disabilities who travel by Air: 715,000]



Source: TransAccess Information Base.

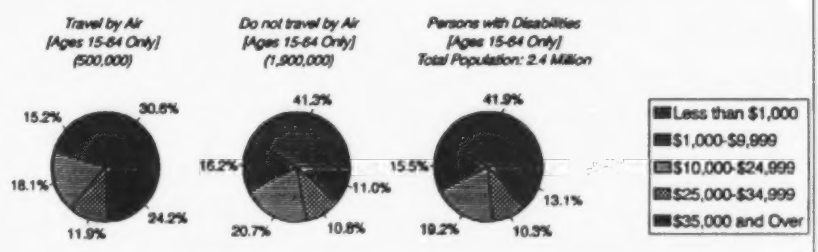
*Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data. * Based on usage between the fall of 1990 and the fall of 1991.*

Individual Annual Employment Income Distribution of Persons with Disabilities who travel by Air

As indicated in Exhibit 4.4a, persons with disabilities who travel by air (ages 15-64 only[3]) have relatively higher incomes than both those who do not travel by air and persons with disabilities in general.

In particular, 36.1% of persons with disabilities who travel by air have an individual annual employment income of $25,000 or more (expressed in 1991 dollars). In comparison, 21.8% of those who did not travel by air have an individual employment income of $25,000 or more, while 23.4% of persons with disabilities in general have an individual employment income over $25,000.

Exhibit 4.4a: Individual Annual Employment Income Distribution of Persons with Disabilities who travel by Air*
(1991 Dollars, Ages 15-64 only, 1995)



Source: TransAccess Information Base. Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data.
** Based on usage between the fall of 1990 and the fall of 1991. Income is expressed in 1991 dollars. Due to the HALS survey design, information on employment income was only collected for persons between the ages of 15 and 64.*

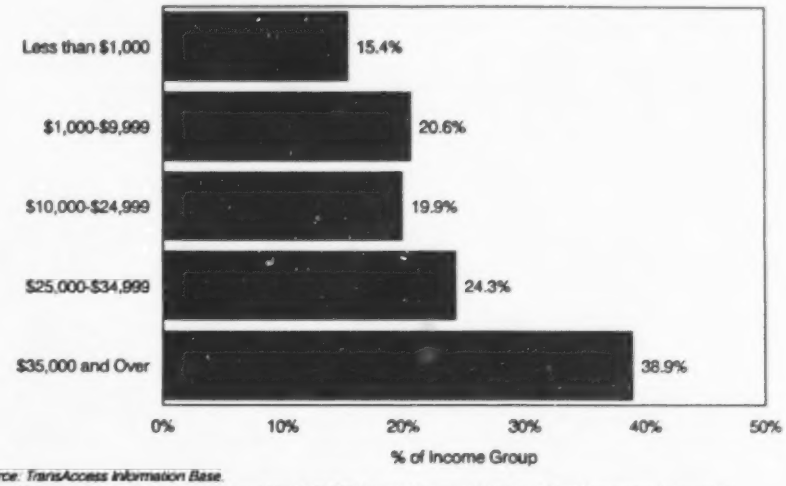
[3] Note that due to the HALS survey design, information on employment income was only collected for persons between the ages of 15 and 64.

Exhibit 4.4b profiles those persons with disabilities who travel by air as a percentage of each income group. As illustrated in this exhibit, persons with disabilities with incomes $35,000 and above (expressed in 1991 dollars) had the highest propensity to travel by air.

Those with incomes of $35,000 and above who travel by air represent 38.9% of all persons with disabilities with incomes of $35,000 and above.

Exhibit 4.4b: Persons with Disabilities who travel by Air* as a Percentage of Each Income Group (1995)

[Total Persons with Disabilities who travel by Air: 715,000]



Source: TransAccess Information Base.

*Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data. * Based on usage between the fall of 1990 and the fall of 1991.*

Persons with Disabilities who travel by Air, by Age

Table 4.1 profiles persons with disabilities who travel by air, by age. This table indicates that persons between the ages of 35 and 54 constitute the largest age group of those who travel by air.

Table 4.1: Persons with Disabilities who travel by Air, by Age (1995)

Age Group	As a % of Those who travel by Air
15-34	18.4%
35-54	35.6%
55-64	17.9%
65+	28.1%
Total	**100.0%**

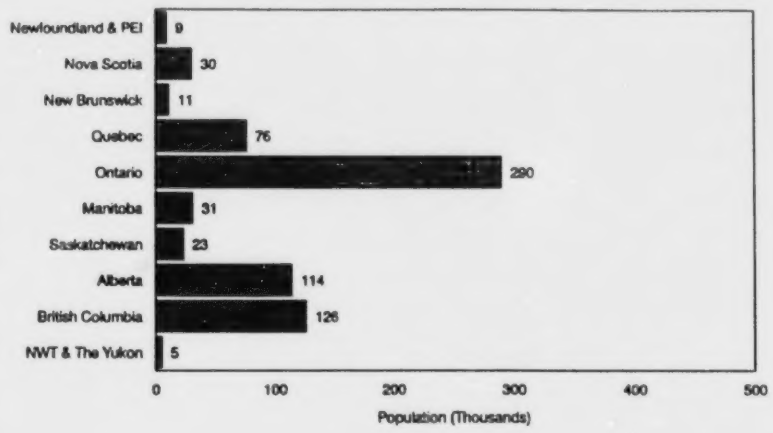
Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

Persons with Disabilities who travel by Air, by Province

Exhibit 4.5 presents a geographical profile of persons with disabilities who travel by air. Clearly, Ontario accounts for the largest population of persons with disabilities who travel by air. Of the 715,000 persons with disabilities who travel by air, 290,000 (41%) reside in Ontario. Combined, Ontario, British Columbia, and Alberta account for 74% of the total number of persons with disabilities who travel by air.

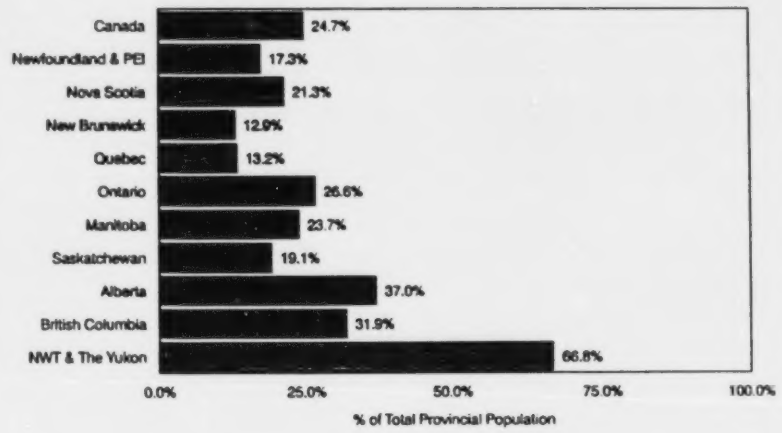
The number of persons with disabilities who travel by air, as a percentage of the total provincial population able to travel long distances is profiled in Exhibit 4.6. As this exhibit indicates, the 5,000 persons with disabilities who travel by air in the Northwest Territories and the Yukon represent approximately 67% of the persons with disabilities able to travel long distances in these territories.

Exhibit 4.5: Persons with Disabilities who travel by Air, by Province (1995)
(Total Persons with Disabilities who travel by Air: 715,000)



Source: TransAccess Information Base. Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data.
** Based on usage between the fall of 1990 and the fall of 1991.*

Exhibit 4.6: Persons with Disabilities who travel by Air*, by Province
(As a % of Total Provincial Population of Persons with Disabilities able to travel Long Distance, 1995)



Source: TransAccess Information Base. Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data.
** Based on usage between the fall of 1990 and the fall of 1991.*

Persons with Disabilities who travel by Air and their Need for an Attendant/Companion

As illustrated in Table 4.2, of the 715,000 persons with disabilities who travel by air, 10.5% (75,000) need an attendant or companion to accompany them due to their condition or health problem. The remaining 89.5% (640,000) do not require an attendant or companion.

Table 4.2: Persons with Disabilities who travel by Air, by their Need for an Attendant or Companion (1995)

Need for Attendant/Companion	Total (000s)	As a % of Those who travel by Air
Need Attendant/Companion - Yes	75	10.5%
Need Attendant/Companion - No	640	89.5%
Total	**715**	**100.0%**

Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

The 75,000 persons with disabilities who travel by air and need an attendant or companion represent 14.0% of the 537,000 persons with disabilities who need an attendant or companion for long distance travel in general.

Persons with Disabilities who travel by Air and their Need for Specialized Transportation or Facilities on Long Distance Trips

As illustrated in Table 4.3, of the 715,000 persons with disabilities who travel by air, 3.8% (27,000) need specialized transportation services or facilities, while 94.7% (677,000) do not require specialized transportation services or facilities. The remaining 1.5% (11,000) do not know whether they require specialized transportation services or facilities.

Table 4.3: Persons with Disabilities who travel by Air, by their Need for Specialized Transportation Services and Facilities on Long Distance Trips (1995)

Need for Special Services/Facilities	Total (000s)	As a % of Those who travel by Air
Need Special Services/Facilities - Yes	27	3.8%
Need Special Services/Facilities - No	677	94.7%
Need Special Services/Facilities - Don't Know	11*	1.5%*
Total	**715**	**100.0%**

Source: TransAccess Information Base. Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data. * Use figure with care; CV is between 16.5% and 33%.

Persons with Disabilities who travel by Air and their Ease of obtaining Information on Specialized Transportation or Facilities

Table 4.4 illustrates that of the 715,000 persons with disabilities who travel by air, 54.1% (387,000) can easily obtain information pertaining to specialized transportation services or facilities[4], while 16.1% (115,000) are unable to easily obtain such information. The remaining 29.8% (213,000) do not know whether they can easily obtain information on specialized transportation services or facilities.

[4] The question concerning ease of finding information pertaining to specialized transportation services and facilities was a general question asked of all respondents able to travel long distances. Therefore, the results profiled above should be interpreted with care, as they represent a cross tabulation between those who have travelled by air and the respondents' ability to find information on special transportation services or facilities in general. For more details/context, see Section F (questions F23-F28) of the 1991 HALS questionnaire provided in the Appendix.

Table 4.4: Persons with Disabilities who travel by Air, by their Ease of obtaining Information on Specialized Transportation Services and Facilities (1995)

Ease of Obtaining Information	Total (000s)	As a % of Those who travel by Air
Can Easily Obtain Information - Yes	387	54.1%
Can Easily Obtain Information - No	115	16.1%
Can Easily Obtain Information - Don't Know	213	29.8%
Total	**715**	**100.0%**

Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

4.2 Persons with Disabilities who have Difficulties travelling by Air

Persons with Disabilities who have/do not have Difficulties travelling by Air

As illustrated in Table 4.5, of the 715,000 persons with disabilities who travel by air, 9.1% (65,000) encounter difficulties, while the remaining 90.9% of those who travel by air experience no difficulties.

Table 4.5: Persons with Disabilities who have Difficulties travelling by Air (1995)

Difficulty travelling by Air	Total* (000s)	As a % of Those who travel by Air
Difficulty travelling by Air - Yes	65	9.1%
Difficulty travelling by Air - No	649	90.9%
Total	**715**	**100.0%**

Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.
* Numbers may not add up to 100% due to rounding.

Table 4.6 provides a comparison of persons with disabilities who have difficulties travelling long distance, by mode of long distance transportation. In absolute terms, air represents the mode with which the most persons with disabilities encounter difficulties. However, intercity

bus represents the mode with the most difficulties encountered as a percentage of total users. In particular, 11.6% of intercity bus users have difficulty travelling by that mode.

Rail and marine/ferry represent the modes with the least number of difficulties encountered, both in absolute terms, and as a percentage of total users.

Table 4.6: Persons with Disabilities who have Difficulties travelling Long Distance, by Mode (1995)

Difficulty travelling by Mode	Total (000s)	As a % of Those who travel by Mode
Difficulty travelling by Air	65	9.1%
Difficulty travelling by Intercity Bus	60	11.6%
Difficulty travelling by Rail	12	7.1%
Difficulty travelling by Marine/Ferry	11	2.5%

Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.
* Use figure with care; CV is between 16.5% and 33%.

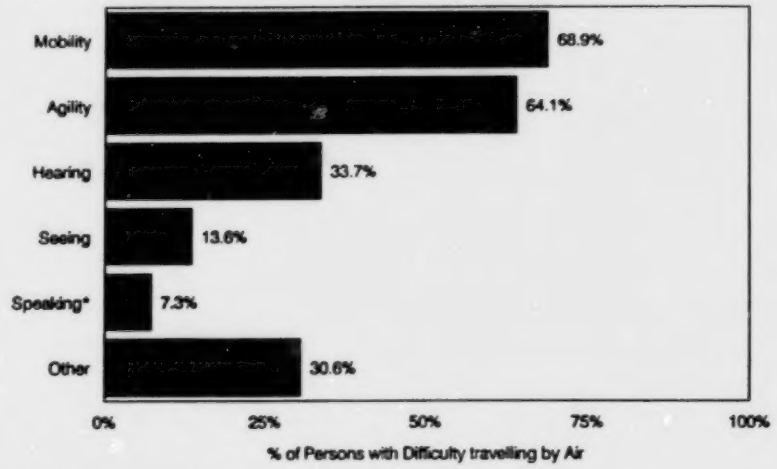
Persons with Disabilities who have Difficulties travelling by Air, by Types and Severity of their Disabilities

As illustrated in Exhibit 4.7, mobility and agility disabilities are the main characteristics of persons with disabilities who have difficulties travelling by air. Persons with disabilities who have difficulties travelling by air also have a relatively high incidence of hearing and other disabilities.

With respect to the severity of their disabilities, persons with disabilities who have difficulties travelling by air have a high incidence of moderately severe and severe disabilities. As illustrated in Exhibit 4.8, 66.1% of those persons with disabilities who have difficulties travelling by air have a moderately severe or severe disability. In comparison, 35.4% of those who do not have difficulties travelling by air have a moderately severe or severe disability.

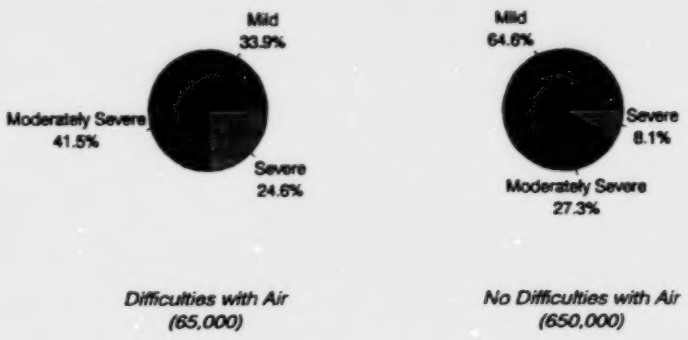
Exhibit 4.7: Disability Characteristics of Persons who have Difficulties travelling by Air (1995)

[Total Persons with Difficulty travelling by Air: 65,000]



*Source: TransAccess Information Base. Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data. * Use figure with care; CV is between 16.5% and 33%.*

Exhibit 4.8: Disability Severity Index for Persons with Disabilities who have Difficulties/do not have Difficulties travelling by Air (1995)



Source: TransAccess Information Base.
Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

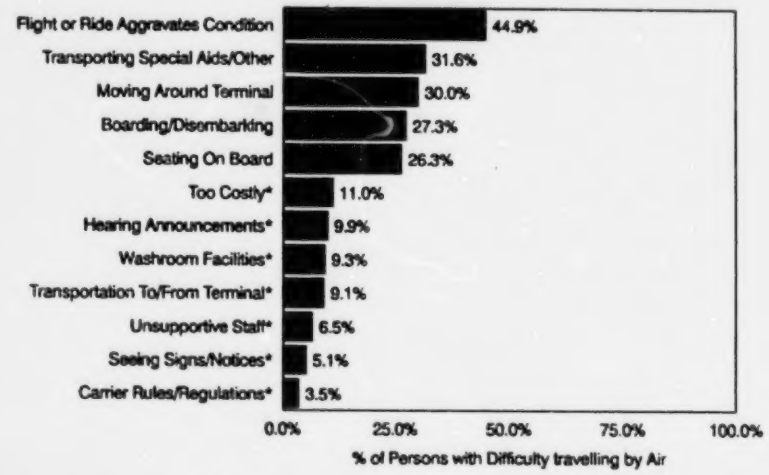
Types of Difficulties encountered by Persons with Disabilities travelling by Air

As profiled in Exhibit 4.9, the most common difficulties encountered by persons with disabilities when travelling by air are:

- the flight aggravates condition;
- transporting special aids/other;
- moving around terminal;
- boarding/disembarking; and
- seating on board.

Exhibit 4.9: Types of Difficulties encountered by Persons with Disabilities travelling by Air (1995)

[Total Persons with Difficulty travelling by Air: 65,000]



*Source: TransAccess Information Base. Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data. Difficulties add up to more than 100% due to multiple responses. * Use figure with care; CV is between 16.5% and 33%.*

Whether Difficulties encountered travelling by Air, limit Air Travel

Persons with disabilities who stated that they had difficulties travelling by air were asked whether the difficulties they encountered limited the amount of their air travel. As Table 4.7 indicates, 26,000 of the 65,000 who have difficulties (40%) stated that these difficulties limited the amount of their air travel.

Table 4.7: Whether Difficulties encountered travelling by Air limit Air Travel (1995)

Whether Difficulties Encountered limit Air Travel	Total (000s)	As a % of Those who have Difficulties travelling by Air
Difficulties limit Air Travel - Yes	26	40.0%
Difficulties limit Air Travel - No	39	60.0%
Total	**65**	**100.0%**

Source: TransAccess Information Base.
Note: Values are age adjusted projections of 1991 HALS (Adults in Households) data.

4.3 Long Distance Trips taken by Air

Table 4.8 presents a profile of the estimated number of long distance trips (of at least 80 km, or 50 miles) taken by persons with disabilities, by mode, in the three month period between April 1 and June 30, 1995.

As this table indicates, 307,000 persons with disabilities took air trips during this period, with a total of 614,000 trips being taken during this three month period. Of both public and private long distance modes of transportation, personal vehicle (i.e., car, van or truck) represents the most frequently used mode both in terms of persons with disabilities taking trips and total trips taken.

Table 4.8: Estimated Number of Long Distance Trips (of at least 80 km, or 50 miles) taken by Persons with Disabilities, by Mode, between April 1 and June 30, 1995

Mode	Total Number of Trips Taken (000s)	Total Persons Taking Trips (000s)	Number of Persons (000s) Taking:			
			1 Trip	2 Trips	3-5 Trips	6+ Trips
Air	614	307	217	53	17	20
Intercity Bus	544	248	148	52	33	15
Rail	143	68	50	10	5*	2*
Marine/Ferry	474	202	110	47	31	14
Car, Van or Truck	13,919	1,672	482	317	397	477

Source: Statistics Canada Special Run. Notes: Values are age adjusted projections of 1991 HALS (Adults in Households) data. Trip estimates are based on usage in the three month period between April 1 and June 30, 1991. *Use figure with care; CV is between 16.5% and 33%.

5.0 Summary

The following are highlights of the data presented in this report.

Persons with Disabilities

- in 1995, there were 3.8 million persons with disabilities accounting for 17.1% of the Canadian adult population over the age of 15 residing in households, with 57.5% of these persons (2.2 million) having transportation disabilities, accounting for 9.9% of the adult population.

- the population of persons with disabilities is expected to increase 82% by the year 2025, to 6.9 million, while the population of persons with transportation disabilities is anticipated to increase by 89% to 4.1 million by 2025. Both of these growth rates exceed that of the general adult population, which is expected to increase by 50% between 1995 and 2025.

- the age distribution of persons with disabilities and persons with transportation disabilities indicate that the incidence of disabilities increases with age. This factor, combined with the growth rate of the population of persons 65 years of age and over, is a driving force behind the increase in the disability populations. Between 1995 and 2025, this age group is expected to increase by approximately 140%, from 3.2 million to 7.8 million.

- in terms of the geographical distribution of persons with disabilities, the provinces of Ontario, Quebec, British Columbia and Alberta represent 82.5% of all persons with disabilities within Canada. These same four provinces represent 83.2% of persons with transportation disabilities.

- as a percentage of a province's total population, Nova Scotia has the highest incidence rate of disabilities, as 24.3% of Nova Scotia's provincial population has a disability. Newfoundland and Prince Edward Island have the lowest incidence rate at 12.3%. With respect to persons with transportation disabilities, Nova Scotia also has the highest incidence rate, as 14.2% of Nova Scotia's provincial population has a transportation disability. The Yukon and the Northwest Territories both have the lowest rate (7.3%).

- persons with transportation disabilities are more likely to have a mobility or agility disability, as compared to persons with disabilities in general. Persons with transportation disabilities also have a high incidence rate of "other" disabilities.

- persons with transportation disabilities are more likely to have a severe disability, as compared to persons with disabilities in general. In particular, 31.1% of persons with transportation disabilities have a severe disability, as compared to 18.2% for persons with disabilities in general.

- the special aids most frequently used by both persons with disabilities in general and persons with transportation disabilities are a cane (other than a white cane), glasses or contact lenses, and a hearing aid.

Long Distance Travel

- with respect to long distance travel, 76.2% of persons with disabilities (2.9 million) are able to take long distance trips, while 676,000 (17.7%) are prevented from taking these trips due to their condition or health problem (the remaining 6.1% were unstated responses).

- the main difficulties which prevent long distance travel are: the flight or ride aggravates their condition, seating on board, transporting special aids/other[5], boarding/disembarking, moving around the terminal, and the costliness of travel.

- with respect to persons with disabilities who can travel long distance, 527,000 require an attendant or companion to accompany them due to their condition or health problem.

- 89,000 persons with disabilities require specialized transportation services or facilities on long distance trips due to their condition or health problem.

- 1.5 million persons with disabilities who are able to travel long distance state that they can easily obtain information on specialized transportation services or facilities for long distance trips; 500,000 state that they could not easily obtain information; and 900,000 did not know.

Air Travel

- in 1995, it is estimated that 715,000 persons with disabilities will travel by air.

- persons with disabilities who travel by air are more likely to have mobility, agility and/or seeing disabilities. They are also characterized by mild disabilities (61.8% report a mild disability).

- persons with disabilities who travel by air have relatively high levels of annual individual employment income, with 36.1% having incomes over $25,000.

- in terms of geographical distribution of persons with disabilities who travel by air, 41% reside within Ontario. Combined, Ontario, British Columbia and Alberta account for 74% of those persons with disabilities who travel by air.

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[5] This difficulty refers to 1) transporting a wheelchair or other specialized aids, and 2) other (i.e., non-specified difficulties). During the HALS data coding process, Statistics Canada grouped these two difficulties together.

- of the 715,000 persons with disabilities who travel by air, 10.5% (75,000) require an attendant or companion to accompany them on long distance trips due to their condition or health problem and 3.8% (27,000) require specialized transportation services or facilities.

- 65,000 (9.1%) of the 715,000 persons with disabilities who travel by air encounter difficulties. These individuals are characterized by a high incidence rate of mobility, agility, hearing and other disabilities, and 66.1% have either a moderately severe or severe disability.

- the most commonly encountered difficulties while travelling by air are: the flight or ride aggravates the individual's condition, transporting special aids/other, moving around the terminal, boarding/disembarking, and seating on board.

- of the 65,000 persons with disabilities who have experienced difficulties travelling by air, 26,000 (40%) stated that the difficulties limit the amount of air travel that they do.

- during the three month period between April 1 and June 30, 1995, it is estimated that 307,000 persons with disabilities took long distance trips by air. A total of 614,000 long distance trips were taken by air during this three month period.

Glossary

Disability

The Health and Activity Limitations Survey uses the World Health Organization's definition of disability which is "*... any restriction or lack (resulting from impairment) of ability to perform any activity in the manner or within the range considered normal for a human being.*"

Adults are not considered to have a disability if they use a technical aid and that aid completely eliminates the limitation, e.g., an individual who uses a hearing aid and states that she or he has no limitation when using the aid would not be considered to have a disability. The concept of time has also been added as an additional parameter - the limitation has to be of a minimum six-month duration, i.e., has lasted or is expected to last six months or more.

Labour Force Status

Employed refers to persons who, during the week prior to enumeration:

(a) did any work at all excluding housework or other maintenance or repairs around the home and volunteer work; or,
(b) were absent from their job or business because of temporary illness or disability, vacation, labour dispute at their place of work, or were absent for other reasons.

Unemployed refers to persons who, during the week prior to enumeration:

(a) were without work, had actively looked for work in the past four weeks and were available for work; or,
(b) had been on lay-off and expected to return to their job; or,
(c) had definite arrangements to start a new job in four weeks or less.

Not in Labour Force refers to the working age population who, in the week prior to enumeration, were neither employed nor unemployed.

Type of Disability

Disability type, referred to as 'nature of disability' by Statistics Canada, categorizes an individual's type of disability(ies), and is based upon the respondent's answer to the Section A (Activities of Daily Living) questions of the 1991 HALS Questionnaire.

A person may have multiple disabilities, meaning that he or she has reported a limitation in more than one category of disability type. The categories used for the HALS survey were defined as follows:

Mobility:	Limited ability to walk, move from room to room, carry an object for 10 metres or stand for long periods.
Agility:	Limited in ability to bend, dress or undress oneself, get in and out of bed, cut toe-nails, use fingers to grasp or handle objects, reach, or cut own food.
Seeing:	Limited in ability to read ordinary newsprint or to see someone from four metres, even when wearing glasses.
Hearing:	Limited in ability to hear what is being said in conversation with one other person or in a group conversation with at least three other people, even when wearing a hearing aid.
Speaking:	Limited in the ability to speak and be understood.
Other:	Limited in activities of daily living due to a learning disability, a mental health condition, a mental handicap, or because of labelling by others.

Transportation-Related Disabilities

Persons with Transportation Disabilities are defined as those individuals:

- Who because of their health problem(s) or condition(s), are unable to use transportation services; or,
- Who use transportation services with more difficulty than those in the general population.

This definition is made up of the five sub-groups below.

1. *Unable To Travel*

Those who are *unable to travel* are defined as:

- question F2(#3): "Do you consider yourself housebound?" - YES; and,
- As defined by the question F20(#7): "Because of your condition or health problem, are you prevented from taking any long trips" - YES

2. *Local Transportation*

Those who have trouble using *local transportation* services are defined as:

- question F16(#7): "Do you have any trouble using your local public transportation service, because of your condition?" - YES; and/or,
- question F10(#4): "Do you need specialized transit service?" - YES; and/or,
- question F11(#6): "Do you use specialized transit service?" - YES; and/or,

- question F4(#1): "Because of your condition, do you require an attendant or companion to accompany you on short trips?" - YES; and/or,
- question F18(#1): "Because of your condition, have you used a taxi during the last year?" - YES.
- **(Excludes Group 1 - those who can't travel)**

3. Inter-City

Those who have trouble using *intercity* transportation services are defined as:

- question F26(#3) and/or F30(#5) and/or F34(#5) and/or F38(#5): "Because of your condition, do you have any trouble using an airplane/bus/train/ferry, as a means of long distance travel?" - YES; and/or,
- question F22(#1): "Because of your condition, do you require an attendant or companion to accompany you on long distance trips?" - YES; and/or,
- question F23(#3): "Because of your condition, do you require any specialized transportation services or facilities for long distance travel?" - YES.
- **(Excludes Group 1 - those who can't travel)**

4. Personal Vehicle

Those who have trouble using *personal vehicles* are defined as:

- question F6(#'s 01, 03, 05, 07, 09): "Do you use any special features as a driver" - YES; and/or,
- question F7: "Do you have any difficulty as a passenger?" - YES; and/or,
- question F8(#'s 1, 3, 5): "Do you use any special features as a passenger" - YES.
- **(Excludes Group 1 - those who can't travel)**

5. Other Persons With Transportation Disabilities

Those in the *other* category are defined as:

- **Those who are not in any of the four groups above, and:**

- Those who say that they are "completely unable" to perform any ONE of the following ADL's:

  - HALS question A1b(#3): "Are you completely unable to hear what is said in normal conversation with one other person?" - YES
  - HALS question A5b(#3): "Are you completely unable to see clearly the face of someone from 12 feed/4 metres (example: across a room), with glasses if normally worn?" - YES
  - HALS question A6a(#1): "Have you been diagnosed as being legally blind?" - YES
  - HALS question A8b(#3): "Are you completely unable to walk 400 metres (about three city blocks) without resting?" - YES

- HALS question A9b(#3): "Are you completely unable to walk up and down a flight of stairs (about 12 steps)?" - YES
- HALS question A11b(#3): "Are you completely unable to move from one room to another?" - YES
- HALS question A13b(#3): "When standing, are you completely unable to bend down and pick up an object from the floor (example: a shoe)?" - YES
- HALS question A17b(#3): "Are you completely unable to use your fingers to grasp or handle (such as using pliers or scissors)?" - YES; and/or,

- Those who say that they are "completely unable" to perform any TWO of the following ADL's"

  - HALS question A2b(#3): "Are you completely unable to hear what is said in a group conversation with at least three other people?"
  - HALS question A3a(#3): "Are you (not) able to understand what is being said over a normal telephone, with a hearing aid if used?"
  - HALS question A4b(#3): "Are you completely unable to read ordinary newsprint, with glasses if normally worn?"
  - HALS question A7b(#9): You are "not...able to make yourself understood (at all) when speaking with... other people."
  - HALS question A12b(#3): "Are you completely unable to stand for long periods of time, that is, more than 20 minutes?"
  - HALS question A18(#3): "Are you completely unable to reach in any direction (example: above your head)?"
  - HALS question A20(iv-#09): "...Are you limited in the kind or amount of activity you can do...in other activities such as travel, sports or leisure?"
  - HALS question A21(#1): "...Do you have any ongoing problems with your ability to remember or learn?"
  - HALS question A25(iv-#09): "Because of a long-term emotional, psychological, nervous or mental health condition or problem, are you limited in the kind or amount of activity you can do...in other activities such as travel, sports or leisure?"

It should be noted that double counting is excluded, i.e., although an individual may fit more than one sub-category, they are only counted once in deriving the total transportation disabled figure.

Census Metropolitan Area (CMA)

A census metropolitan area (CMA) is a very large urban area, together with adjacent urban and rural areas (see below for related definitions) which have a high degree of economic and social integration with that urban area. A CMA is delineated around an urban area (called the urbanized core and having a population of at least 100,000, based on the previous census).

Urban and Rural Areas

Statistics Canada defines an urban area as an area which has attained a population concentration of at least 1,000, and a population density of at least 400 per square kilometre, at the time of the most recent census. Rural areas are small towns, villages, and other populated places under 1,000 in population, at the time of the most recent census. Taken together, urban and rural areas cover all of Canada.

Appendix: 1991 HALS Questionnaire

Section F

1991 HALS Questionnaire Section F - Transportation

The following is an excerpt from the 1991 Health and Activities Limitation Survey (HALS) "User's Guide"; Statistics Canada, 1991.

I would like to ask you about the means of transportation which you use for local travel. This includes trips to work, shopping, or any other local trips under 80 km (50 miles).

F1 **Because of your condition or health problem do you have difficulty leaving your residence to take short trips?**

Yes O ===>Go to F2 No O ===>Go to F4

F2 **Do you consider yourself housebound?**

Yes O ===>Go to F3 No O ===>Go to F4

F3 **Why do you consider yourself housebound?**

(*INTERVIEWER: Read list. Mark all that apply*).

i)	Accessible transportation is not available to you	O
ii)	Dependent on non-portable aids	O
iii)	Do not feel safe when you leave your home	O
iv)	No attendant or companion available to go with you	O
v)	Need assistance once you get to where you are going	O
vi)	Your condition or health problem is aggravated when you go out	O
vii)	You do not want to go out	O
viii)	Other, please specify	O

...Go to F20

F4 **Do you require an attendant or companion to accompany you on short trips?**

Yes O No O

F5 **Do you drive a motor vehicle?**

Yes O ===>Go to F6 No O ===>Go to F7

F6 **Because of your condition or health problem, as a DRIVER do you use...**

		Yes	No
i)	Hand controls or brake controls	O	O
ii)	Hand rails, straps, specialized handles, ramps or lifts	O	O
iii)	Power steering, windows or mirrors	O	O
iv)	Space for wheelchair or other specialized equipment (including storage space)	O	O
v)	Other features, please specify	O	O

F7 **Because of your condition or health problem, do you have any difficulty as a PASSENGER in a motor vehicle?**

Yes O ===>Go to F8

No O ===>Go to F8

Never travel as a passenger O ===>Go to F9

F8 **Because of your condition or health problem, as a PASSENGER do you use...**

		Yes	No
ii)	Hand rails, straps, specialized handles, ramps or lifts	O	O
iv)	Space for wheelchair or other specialized equipment (including storage space)	O	O
v)	Other features, please specify	O	O

F9 **Some communities have specialized bus or van services for people who have difficulty using the regular transportation service. When using this specialized service, people can call ahead and ask to be picked up. Is this service available in your area?**

Yes O ===>Go to F11

No O ===>Go to F10

Don't Know/Not Sure O ===>Go to F10

F10 Do you need this service?

Yes O ===>Go to F14 No O ===>Go to F14

F11 Do you use this service?

Yes O ===>Go to F12 No O ===>Go to F14

F12 How often do you use this service?

(*INTERVIEWER: Read list. Mark only one*).

i) Almost every day for at least some part of the year O ==>Go to F14

ii) Frequently O ==>Go to F14

iii) Occasionally O ==>Go to F13

iv) Seldom O ==>Go to F13

F13 Why don't you use this bus or van service more often? I will read you a list. Please answer yes or no to each.

		Yes	No
i)	Service not needed more often	O	O
ii)	Service too expensive	O	O
iii)	Service not available on a 24 hour, 7 day a week basis	O	O
iv)	Will not allow your attendant, spouse, child, etc. to travel with you	O	O
v)	Booking rules do not allow for last minute arrangements	O	O
vi)	other please specify	O	O

F14 During the last year have you used local public transportation, for example, bus, rapid transit, subway, metro?

Yes O ===>Go to F15 No O ===>Go to F18

F15 How often do you use the local public transportation service?

(*INTERVIEWER: Read list. Mark only one*).

i) Almost every day for at least some part of the year O

ii) Frequently O

iii) Occasionally O

iv) Seldom O

F16 Do you have any difficulty using your local public transportation service, because of your condition or health problem?

Yes O ===>Go to F17 No O ===>Go to F18

F17 Do you have difficulty...

(*INTERVIEWER: Read list. Mark all that apply*).

i) Getting to or locating the stop O

ii) Waiting at the stop O

iii) Getting on and off vehicle O

iv) Hearing announcements O

v) Seeing signs or notices O

vi) Because of insufficient space to sit or stand in the vehicle O

vii) Standing in the vehicle while it is moving O

viii) Obtaining information about timetables, schedules and routes O

ix) Because of unsupportive staff O

F18 **Because of your condition or health problem have you used a taxi during the last year?**

Yes O ===>Go to F19 No O ===>Go to F20

F19 **How often did you use this taxi service?**

(*INTERVIEWER: Read list. Mark only one*).

i) Almost everyday for at least some part of the year O

ii) Frequently O

iii) Occasionally O

iv) Seldom O

I will now ask you about long-distance travel. By long-distance travel, I mean trips of 80 kms (50 miles) or more.

F20 **Because of your condition or health problem are you prevented from taking any long distance trips?**

Yes O ===>Go to F21 No O ===>Go to F22

F21 What prevents you from taking long distance trips? I will read you a list. Please answer year or no to each.

		Yes	No
i)	Lack of appropriate transportation to and from terminal	O	O
ii)	Moving around terminal or station	O	O
iii)	Boarding or disembarking	O	O
iv)	Seating on board	O	O
v)	Seeing signs or notices	O	O
vi)	Hearing announcements	O	O
vii)	Washroom facilities	O	O
viii)	Unsupportive staff	O	O
ix)	Transporting wheelchair or other specialized aids	O	O
x)	Carrier rules and regulations	O	O
xi)	Flight or ride aggravates your condition	O	O
xii)	Too costly	O	O
xii)	Other, please specify	O	O

F22 Because of your condition or health problem, do you require an attendant or companion to accompany you on long distance trips?

Yes O No O

F23 Because of your condition or health problem, do you require any specialized transportation services or facilities for long distance travel?

Yes O No O

Don't Know O

F24 Can you easily obtain information about specialized transportation services and facilities which you may need for long distance travel?

Yes O No O

Don't Know O

F25 During the last year have you travelled by airplane?

Yes O ===>Go to F26 No O ===>Go to F29

F26 Do you have difficulty travelling by airplane because of your condition or health problem?

Yes O ===>Go to F27 No O ===>Go to F29

F27 What kind of difficultly do vou have travelling by airplane?

(*INTERVIEWER: Read list. Mark all that apply*).

		Yes	No
i)	Lack of appropriate transportation to and from terminal	O	O
ii)	Moving around terminal or station	O	O
iii)	Boarding or disembarking	O	O
iv)	Seating on board	O	O
v)	Seeing signs or notices	O	O
vi)	Hearing announcements	O	O
vii)	Washroom facilities	O	O
viii)	Unsupportive staff	O	O
ix)	Transporting wheelchair or other specialized aids	O	O
x)	Carrier rules and regulations	O	O
xi)	Flight or ride aggravates your conditions	O	O
xii)	Too costly	O	O
xii)	Other, please specify	O	O

F28 **Do these difficulties limit the amount of long distance travel that you do by airplane?**

Yes O No O

F29 **During the last year have you travelled by train?**

Yes O ===>Go to F30 No O ===>Go to F33

F30 **Do you have difficulty taking long distance trips by train because of your condition or health problem?**

Yes O ===>Go to F31 No O ===>Go to F33

F31 **What kind of difficulty do you have travelling by train?**

(*INTERVIEWER: Read list. Mark all that apply*).

		Yes	No
i)	Lack of appropriate transportation to and from terminal	O	O
ii)	Moving around terminal or station	O	O
iii)	Boarding or disembarking	O	O
iv)	Seating on board	O	O
v)	Seeing signs or notices	O	O
vi)	Hearing announcements	O	O
vii)	Washroom facilities	O	O
viii)	Unsupportive staff	O	O
ix)	Transporting wheelchair or other specialized aids	O	O
x)	Carrier rules and regulations	O	O
xi)	Flight or ride aggravates your conditions	O	O
xii)	Too costly	O	O
xii)	Other, please specify	O	O

F32 **Do these difficulties limit the amount of long distance travel that you do by train?**

Yes O No O

F33 **During the last year have you travelled long distance by bus?**

Yes O ===>Go to F34 No O ===>Go to F37

F34 Do you have difficulty taking long distance trips by bus because of your condition or health problem?

Yes O ===>Go to F35 No O ===>Go to F37

F35 **What kind of difficulty do you have travelling long distance by bus?**

(*INTERVIEWER: Read list. Mark all that apply*).

		Yes	No
i)	Lack of appropriate transportation to and from terminal	O	O
ii)	Moving around terminal or station	O	O
iii)	Boarding or disembarking	O	O
iv)	Seating on board	O	O
v)	Seeing signs or notices	O	O
vi)	Hearing announcements	O	O
vii)	Washroom facilities	O	O
viii)	Unsupportive staff	O	O
ix)	Transporting wheelchair or other specialized aids	O	O
x)	Carrier rules and regulations	O	O
xi)	Flight or ride aggravates your conditions	O	O
xii)	Too costly	O	O
xii)	Other, please specify	O	O

F36 **Do these difficulties limit the amount of long distance travel that you do by bus?**

Yes O No O

F37 **During the last year have you travelled by ferry?**

Yes O ===>Go to F38 No O ===>Go to F41

F38 **Do you have difficulty taking long distance trips by ferry because of your condition or health problem?**

Yes O ===>Go to F39 No O ===>Go to F41

F39 **What kind of difficulty do you have travelling by ferry?**

(*INTERVIEWER: Read list. Mark all that apply*).

		Yes	No
i)	Lack of appropriate transportation to and from terminal	O	O
ii)	Moving around terminal or station	O	O
iii)	Boarding or disembarking	O	O
iv)	Seating on board	O	O
v)	Seeing signs or notices	O	O
vi)	Hearing announcements	O	O
vii)	Washroom facilities	O	O
viii)	Unsupportive staff	O	O
ix)	Transporting wheelchair or other specialized aids	O	O
x)	Carrier rules and regulations	O	O
xi)	Flight or ride aggravates your conditions	O	O
xii)	Too costly	O	O
xii)	Other, please specify	O	O

F40 Do these difficulties limit the amount of long distance travel that you do by ferry?

Yes O No O

F41 During the last year have you travelled long distance by car, van or truck?

Yes O ===>Go to F42 No O ===>Go to F43

F42 **Because of your condition or health problem, do you have difficulty using a car, van or truck for long distance travel?**

Yes O No O

Don't Know O

F43 **How many long distance trips of at least 80 km or 50 miles have you taken between April 1 and June 30th, 1991 by...**

(*INTERVIEWER: If none, enter 000*).

i) airplane _____
ii) bus _____
iii) train _____
iv) ferry _____
v) car, van or truck _____

1991 HALS Questionnaire Section F - Transportation

The following is an excerpt from the 1991 Health and Activities Limitation Survey (HALS) "User's Guide"; Statistics Canada, 1991.

I would like to ask you about the means of transportation which you use for local travel. This includes trips to work, shopping, or any other local trips under 80 km (50 miles).

F1 Because of your condition or health problem do you have difficulty leaving your residence to take short trips?

Yes O ===>Go to F2 No O ===>Go to F4

F2 Do you consider yourself housebound?

Yes O ===>Go to F3 No O ===>Go to F4

F3 Why do you consider yourself housebound?

(*INTERVIEWER: Read list. Mark all that apply*).

i)	Accessible transportation is not available to you	O
ii)	Dependent on non-portable aids	O
iii)	Do not feel safe when you leave your home	O
iv)	No attendant or companion available to go with you	O
v)	Need assistance once you get to where you are going	O
vi)	Your condition or health problem is aggravated when you go out	O
vii)	You do not want to go out	O
viii)	Other, please specify	O

...Go to F20

F4 **Do you require an attendant or companion to accompany you on short trips?**

Yes O No O

F5 **Do you drive a motor vehicle?**

Yes O ===>Go to F6 No O ===>Go to F7

F6 **Because of your condition or health problem, as a DRIVER do you use...**

		Yes	No
i)	Hand controls or brake controls	O	O
ii)	Hand rails, straps, specialized handles, ramps or lifts	O	O
iii)	Power steering, windows or mirrors	O	O
iv)	Space for wheelchair or other specialized equipment (including storage space)	O	O
v)	Other features, please specify	O	O

F7 **Because of your condition or health problem, do you have any difficulty as a PASSENGER in a motor vehicle?**

Yes O ===>Go to F8

No O ===>Go to F8

Never travel as a passenger O ===>Go to F9

F8 **Because of your condition or health problem, as a PASSENGER do you use...**

		Yes	No
ii)	Hand rails, straps, specialized handles, ramps or lifts	O	O
iv)	Space for wheelchair or other specialized equipment (including storage space)	O	O
v)	Other features, please specify	O	O

F9 **Some communities have specialized bus or van services for people who have difficulty using the regular transportation service. When using this specialized service, people can call ahead and ask to be picked up. Is this service available in your area?**

Yes O ===>Go to F11

No O ===>Go to F10

Don't Know/Not Sure O ===>Go to F10

F10 **Do you need this service?**

Yes O ===>Go to F14 No O ===>Go to F14

F11 **Do you use this service?**

Yes O ===>Go to F12 No O ===>Go to F14

F12 **How often do you use this service?**

(*INTERVIEWER: Read list. Mark only one*).

i) Almost every day for at least some part of the year O ==>Go to F14

ii) Frequently O ==>Go to F14

iii) Occasionally O ==>Go to F13

iv) Seldom O ==>Go to F13

F13 **Why don't you use this bus or van service more often? I will read you a list. Please answer yes or no to each.**

		Yes	No
i)	Service not needed more often	O	O
ii)	Service too expensive	O	O
iii)	Service not available on a 24 hour, 7 day a week basis	O	O
iv)	Will not allow your attendant, spouse, child, etc. to travel with you	O	O
v)	Booking rules do not allow for last minute arrangements	O	O
vi)	other please specify	O	O

F14 During the last year have you used local public transportation, for example, bus, rapid transit, subway, metro?

Yes O ===>Go to F15 No O ===>Go to F18

F15 How often do you use the local public transportation service?

(*INTERVIEWER: Read list. Mark only one*).

i) Almost every day for at least some part of the year O

ii) Frequently O

iii) Occasionally O

iv) Seldom O

F16 Do you have any difficulty using your local public transportation service, because of your condition or health problem?

Yes O ===>Go to F17 No O ===>Go to F18

F17 Do you have difficulty...

(*INTERVIEWER: Read list. Mark all that apply*).

i) Getting to or locating the stop O

ii) Waiting at the stop O

iii) Getting on and off vehicle O

iv) Hearing announcements O

v) Seeing signs or notices O

vi) Because of insufficient space to sit or stand in the vehicle O

vii) Standing in the vehicle while it is moving O

viii) Obtaining information about timetables, schedules and routes O

ix) Because of unsupportive staff O

F18 **Because of your condition or health problem have you used a taxi during the last year?**

Yes O ===>Go to F19 No O ===>Go to F20

F19 **How often did you use this taxi service?**

(*INTERVIEWER: Read list. Mark only one*).

i) Almost everyday for at least some part of the year O

ii) Frequently O

iii) Occasionally O

iv) Seldom O

I will now ask you about long-distance travel. By long-distance travel, I mean trips of 80 kms (50 miles) or more.

F20 **Because of your condition or health problem are you prevented from taking any long distance trips?**

Yes O ===>Go to F21 No O ===>Go to F22

F21 What prevents you from taking long distance trips? I will read you a list. Please answer year or no to each.

		Yes	No
i)	Lack of appropriate transportation to and from terminal	O	O
ii)	Moving around terminal or station	O	O
iii)	Boarding or disembarking	O	O
iv)	Seating on board	O	O
v)	Seeing signs or notices	O	O
vi)	Hearing announcements	O	O
vii)	Washroom facilities	O	O
viii)	Unsupportive staff	O	O
ix)	Transporting wheelchair or other specialized aids	O	O
x)	Carrier rules and regulations	O	O
xi)	Flight or ride aggravates your condition	O	O
xii)	Too costly	O	O
xii)	Other, please specify	O	O

F22 Because of your condition or health problem, do you require an attendant or companion to accompany you on long distance trips?

Yes O No O

F23 Because of your condition or health problem, do you require any specialized transportation services or facilities for long distance travel?

Yes O No O

Don't Know O

F24 **Can you easily obtain information about specialized transportation services and facilities which you may need for long distance travel?**

Yes O No O

Don't Know O

F25 **During the last year have you travelled by airplane?**

Yes O ===>Go to F26 No O ===>Go to F29

F26 **Do you have difficulty travelling by airplane because of your condition or health problem?**

Yes O ===>Go to F27 No O ===>Go to F29

F27 **What kind of difficultly do you have travelling by airplane?**

(*INTERVIEWER: Read list. Mark all that apply*).

		Yes	No
i)	Lack of appropriate transportation to and from terminal	O	O
ii)	Moving around terminal or station	O	O
iii)	Boarding or disembarking	O	O
iv)	Seating on board	O	O
v)	Seeing signs or notices	O	O
vi)	Hearing announcements	O	O
vii)	Washroom facilities	O	O
viii)	Unsupportive staff	O	O
ix)	Transporting wheelchair or other specialized aids	O	O
x)	Carrier rules and regulations	O	O
xi)	Flight or ride aggravates your conditions	O	O
xii)	Too costly	O	O
xii)	Other, please specify	O	O

F28 **Do these difficulties limit the amount of long distance travel that you do by airplane?**

Yes O No O

F29 **During the last year have you travelled by train?**

Yes O ===>Go to F30 No O ===>Go to F33

F30 **Do you have difficulty taking long distance trips by train because of your condition or health problem?**

Yes O ===>Go to F31 No O ===>Go to F33

F31 **What kind of difficulty do you have travelling by train?**

(*INTERVIEWER: Read list. Mark all that apply*).

		Yes	No
i)	Lack of appropriate transportation to and from terminal	O	O
ii)	Moving around terminal or station	O	O
iii)	Boarding or disembarking	O	O
iv)	Seating on board	O	O
v)	Seeing signs or notices	O	O
vi)	Hearing announcements	O	O
vii)	Washroom facilities	O	O
viii)	Unsupportive staff	O	O
ix)	Transporting wheelchair or other specialized aids	O	O
x)	Carrier rules and regulations	O	O
xi)	Flight or ride aggravates your conditions	O	O
xii)	Too costly	O	O
xii)	Other, please specify	O	O

F32 Do these difficulties limit the amount of long distance travel that you do by train?

Yes O No O

F33 During the last year have you travelled long distance by bus?

Yes O ===>Go to F34 No O ===>Go to F37

F34 Do you have difficulty taking long distance trips by bus because of your condition or health problem?

Yes O ===>Go to F35 No O ===>Go to F37

F35 What kind of difficulty do you have travelling long distance by bus?

(*INTERVIEWER: Read list. Mark all that apply*).

		Yes	No
i)	Lack of appropriate transportation to and from terminal	O	O
ii)	Moving around terminal or station	O	O
iii)	Boarding or disembarking	O	O
iv)	Seating on board	O	O
v)	Seeing signs or notices	O	O
vi)	Hearing announcements	O	O
vii)	Washroom facilities	O	O
viii)	Unsupportive staff	O	O
ix)	Transporting wheelchair or other specialized aids	O	O
x)	Carrier rules and regulations	O	O
xi)	Flight or ride aggravates your conditions	O	O
xii)	Too costly	O	O
xii)	Other, please specify	O	O

F36 **Do these difficulties limit the amount of long distance travel that you do by bus?**

Yes O No O

F37 **During the last year have you travelled by ferry?**

Yes O ===>Go to F38 No O ===>Go to F41

F38 **Do you have difficulty taking long distance trips by ferry because of your condition or health problem?**

Yes O ===>Go to F39 No O ===>Go to F41

F39 **What kind of difficulty do you have travelling by ferry?**

(*INTERVIEWER: Read list. Mark all that apply*).

		Yes	No
i)	Lack of appropriate transportation to and from terminal	O	O
ii)	Moving around terminal or station	O	O
iii)	Boarding or disembarking	O	O
iv)	Seating on board	O	O
v)	Seeing signs or notices	O	O
vi)	Hearing announcements	O	O
vii)	Washroom facilities	O	O
viii)	Unsupportive staff	O	O
ix)	Transporting wheelchair or other specialized aids	O	O
x)	Carrier rules and regulations	O	O
xi)	Flight or ride aggravates your conditions	O	O
xii)	Too costly	O	O
xii)	Other, please specify	O	O

F40 **Do these difficulties limit the amount of long distance travel that you do by ferry?**

Yes O No O

F41 **During the last year have you travelled long distance by car, van or truck?**

Yes O ===>Go to F42 No O ===>Go to F43

F42 **Because of your condition or health problem, do you have difficulty using a car, van or truck for long distance travel?**

Yes O No O

Don't Know O

F43 **How many long distance trips of at least 80 km or 50 miles have you taken between April 1 and June 30th, 1991 by...**

(*INTERVIEWER: If none, enter 000*).

i) airplane _____
ii) bus _____
iii) train _____
iv) ferry _____
v) car, van or truck _____

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